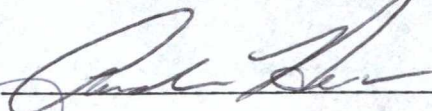


STUDY PLAN  
SEATTLE IRON AND METALS

ENVIRONMENTAL SERVICES DIVISION  
U.S. ENVIRONMENTAL PROTECTION AGENCY  
1200 SIXTH AVENUE  
SEATTLE WASHINGTON 98101

APPROVALS

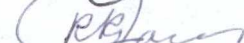
PROJECT OFFICER:



DATE:

7/15/86

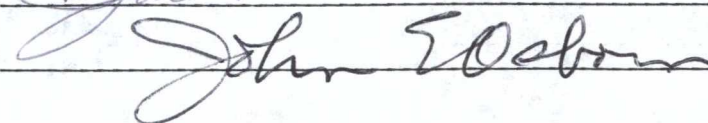
QA OFFICER:



DATE:

7-15-86

SUPERVISOR:



DATE:

7/15/86

PROJECT NAME: SEATTLE IRON AND METALS

PROJECT MANAGER: Andrew J. Hess

FIELD OPERATIONS: Andrew Hess, Doug Smith, David Robocker

QA OFFICE CONCURRENCE: \_\_\_\_\_ DATE: \_\_\_\_\_

ESD PEER REVIEW: *John E. Osborn* DATE: 7/15/86

PROJECT NUMBER: DEC-263 B ACCOUNT NUMBER: AFEB3A

LABORATORY DESIGNATED: \_\_\_\_\_ EPA \_\_\_\_\_ CLP \_\_\_\_\_ PRIVATE

SAMPLE NUMBERS ASSIGNED: from 86290675 to 86290699

SAMPLE SCHEDULE AND MILESTONES:

ACTIVITY	DATE
Sample Collection	7/16/86
Sample Analysis	8/16/86
Final Report	8/30/86

SAMPLE MANAGEMENT OFFICE REVIEW:

DATE:

PROJECT DESCRIPTION AND SITE LOCATION:

The site is located at 2700 16th Ave SW on Harbor Island and the site had been used for copper wire reclamation, lead-acid battery recycling and waste oil storage, incinerator ash and sediment was sampled for dioxin and metals toxicity on Dec. 10, 1985 and dioxins and furans were detected in the parts-per-billion range.

PROJECT MEASUREMENT OBJECTIVES:

The data will be used to determine the existence and extent of any PCB contamination in soil, runoff, water and other materials or items on the site.

SAMPLE RATIONALE AND NETWORK DERIVATION:

Samples of soil will be collected from stained areas or areas of otherwise suspected contamination. Wipe samples and/or "drum thief" type samples will be collected from items or equipment suspected to contain or be contaminated with PCB. Water or sediment samples will be collected from any storm drains, catch basins, sumps or impoundments on site or nearby areas as appropriate.

## ANALYTICAL DATA:

# OF SAMPLES	PARAMETER	QA SAMPLES	MATRIX	CONTAINER	HOLDING TIME	PRESERVATION
14	PCB	1	soil/sed	8 oz. glass	48 hr.	ice
4	PCB	1	water	2 l. glass	48 hr.	ice
3	PCB	1	wipe	cotton swab	48 hr.	ice
3	PCB	1	oil	40 ml glass	48 hr.	ice

## DATA QUALITY OBJECTIVES:

PARAMETER	METHOD	DETECTION LIMITS	PRECISION	ACCURACY	COMPLETENESS
PCB	EPA Region 10 Method	1 ppb	per method	95%	95%

## SAMPLING PROCEDURES TO BE USED:

Surface soil samples will be collected into 8 ounce glass jars using disposable wooden tongue depressors. Subsurface soil samples will be collected using a stainless steel hand auger and transferred to the sample containers with a wooden tongue depressor. Water samples will be a "grab" with the 1/2 gallon sample container or with another clean glass container and transferred to the sample container. Oil samples will be collected by a swipe using a cotton swab or other appropriate wiper such as a Kimwipe or using a new glass tube such as a "drum thief" or pipette.

## SAMPLE CUSTODY AND DOCUMENTATION:

Samples will be in the custody of EPA personnel. Region 10 Chain of Custody procedures and forms will be used. Custody seals will be placed on all shipping containers.

## CALIBRATION PROCEDURES AND PREVENTIVE MAINTENANCE.

No field analytical equipment will be used. However, laboratory calibration procedures described in the Regional Laboratory, standard operative protocols for water, sediment, and oil analysis will be used.

LABORATORY DATA REDUCTION/QA REVIEW:

The Regional laboratory will have total responsibility for data generation and reporting. This will include examination of raw data. Data will be put into the laboratory Data Management System.

FIELD DATA REDUCTION/QA REVIEW:

Field notes, photos, and field sample data sheets will be used to document survey sample activities.

REPORTS (AS REQUIRED):

The program office will be responsible for generating any reports from the data results as supplied by ESD.

SYSTEM AND PERFORMANCE AUDITS:

None requested.

SCHEDULED:

CONDUCTED:

QA REPORT TO MANAGEMENT:

None requested.

SAFETY:

Cotton coveralls, rubber boots, and hard hats if required will be worn at all times on site. Protective rubber gloves will be worn by personnel collecting samples. Other than skin protection no other safety problems are foreseen.